

## P-T conditions of the Mugi Melange estimated from the fluid inclusion analysis of syn- and post- melange veins.

# Masayuki Matsumura[1], Yoshitaka Hashimoto[2], Mamoru Enjoji[3], Eisei Ikesawa[4], Gaku Kimura[5]

[1] Earth and Planetary Sci., Tokyo Univ, [2] Dep. of Nat. Env. Sci., Univ. of Tokyo, [3] Inst. Earth Sci., Waseda Univ., [4] Dept. eps, Univ. of Tokyo, [5] Earth and Planetary Science . Inst., Univ. of Tokyo

The Shimanto Belt of southwest Japan is one of the best-studied ancient accretionary complexes in the circum Pacific region and includes various kinds of melange. In this study we survey the Mugi melange, the boundary between the northern Cretaceous and southern Tertiary part. Mugi melange presents block-in-matrix structure and contains basalt, chert and sandstone blocks.

We categorized veins into two on the basis of their generations. The first generation veins are syn-melange veins developed in the boudin-neck and the second generation veins are later-stage veins cutting the melange fabrics.

We analyzed P-T condition when water-methane immiscible fluid was trapped within the vein minerals mentioned above.

The results are as follows. The fluid inclusion trapped within the first generation veins records about 160-200°C and 100-140MPa. The second one records about 120-200°C and 100-150MPa. These values are enough within the range that has been recognized as seismogenic zone by Hyndman(1995) and others. So we think that the Mugi melange had been experienced the seismogenic zone.